

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-12 are pending in this application. Claims 1 and 5 are independent. Claims 1-12 are hereby amended. No new matter has been introduced by this amendment. Support for this amendment is provided throughout the Specification as originally filed. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

The Abstract has been amended for clarification purposes, thereby rendering the objection moot.

Applicants submit herewith two replacement sheets amending Figures 1 and 3.

Applicants submit herewith a substitute Specification, which corrects minor grammatical errors (document identification number 263728) and a copy showing the changes made (document identification number 263159). No new matter has been introduced.

II. 35 U.S.C. § 103(a) REJECTIONS

Claims 1-8 and 11-12 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,720,019 to Koss et al. in view of U.S. Patent No. 5,982,380

to Inoue et al. Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,720,019 to Koss et al. in view of U.S. Patent No. 5,982,380 to Inoue et al. in view of U.S. Patent No. 5,313,610 to Oliver et al.

III. RESPONSE TO REJECTIONS

Independent claim 1, as amended, recites, *inter alia*:

“...a clip code generation circuit for generating clip codes obtained by setting data in accordance with results of a comparison of coordinates of said vertices and a judgment reference value of said multi-dimensional region and a negative value of the judgment reference value as bit data;

clip registers for shifting the clip codes generated at said clip code generation circuit; and

a logic circuit for performing a logic operation with respect to all bit data set in said clip registers and setting a clip flag indicating whether or not a vertex to be judged is inside or outside the multi-dimensional region of the object to be drawn.” (emphasis added)

As understood by Applicants, U.S. Patent No. 5,720,019 to Koss et al. (hereinafter, merely, “Koss”) relates to a graphics processing circuit for use in a graphics accelerator that includes a clipping processor, with a vertex input data path operatively connected to a vertex data input of the clipping processor. A clipping preprocessor has a vertex data input operatively connected to the vertex input data path and a control output operatively connected to a control input of the clipping processor.

As understood by Applicants, U.S. Patent No. 5,982,380 to Inoue et al. (hereinafter, merely “Inoue”) relates to judging that a vertex exists within a view volume when values stored in registers (231 to 236) are all “1”. Determining whether the vertex exists within or beyond the view volume can be judged by whether the values stored in the registers (231 to 236) are all “1” or not. A clip code generation/judgment unit (20) comprises a 6-input AND gate

(24) which obtains a logical product of the values stored in the registers (231 to 236) to output a judgment signal (M1).

Applicants submit that neither Koss or Inoue, taken alone or in combination, disclose or suggest the above-identified features of claim 1. Specifically nothing has been found in Koss or Inoue that would teach or suggest a clip code generation circuit or clip registers for shifting the clip codes generated at said clip code generation circuit; or a logic circuit for performing a logic operation with respect to all bit data set in said clip registers and setting a clip flag, as recited in claim 1.

Indeed, Applicants respectfully disagree with the assertion in the Office Action that the disclosure at Koss column 2, lines 45-55 of a clip bus *prima facie* means that the clip codes are being generated. Applicants have found nothing in Koss that would disclose clip code generation circuit for generating clip codes obtained by setting data in accordance with results of a comparison of coordinates of said vertices and a judgment reference value of said multi-dimensional region and a negative value of the judgment reference value as bit data, as recited in claim 1.

Similarly, Applicants respectfully disagree with the assertion in the Office Action that the disclosure at Koss column 9, lines 38-51 of vertex clip code shift register *prima facie* perform the recited functionality. Applicants have found nothing in Koss that would disclose clip registers for shifting the clip codes generated at said clip code generation circuit, as recited in claim 1.

Therefore, Applicants respectfully submit that claim 1 is patentable.

For reasons similar to those described above with regard to independent claim 1, independent claim 5, which recites similar features, is also believed to be allowable.

IV. DEPENDENT CLAIMS

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosures in the cited reference it is respectfully requested that the Examiner specifically indicate those portions of the reference providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,
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IN THE DRAWINGS

The attached two sheets of drawings includes changes to Figures 1 and 3. These two sheets replace the original two sheets including Figures 1 and 3. In Figure 1, an end point of line "W" is added. In Figure 3, "PRIM" is replaced with --PROM--.

Attachment: Replacement Sheets of Figures 1 and 3

Two Annotated Sheets Showing Changes to Figures 1 and 3

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FIG. 1

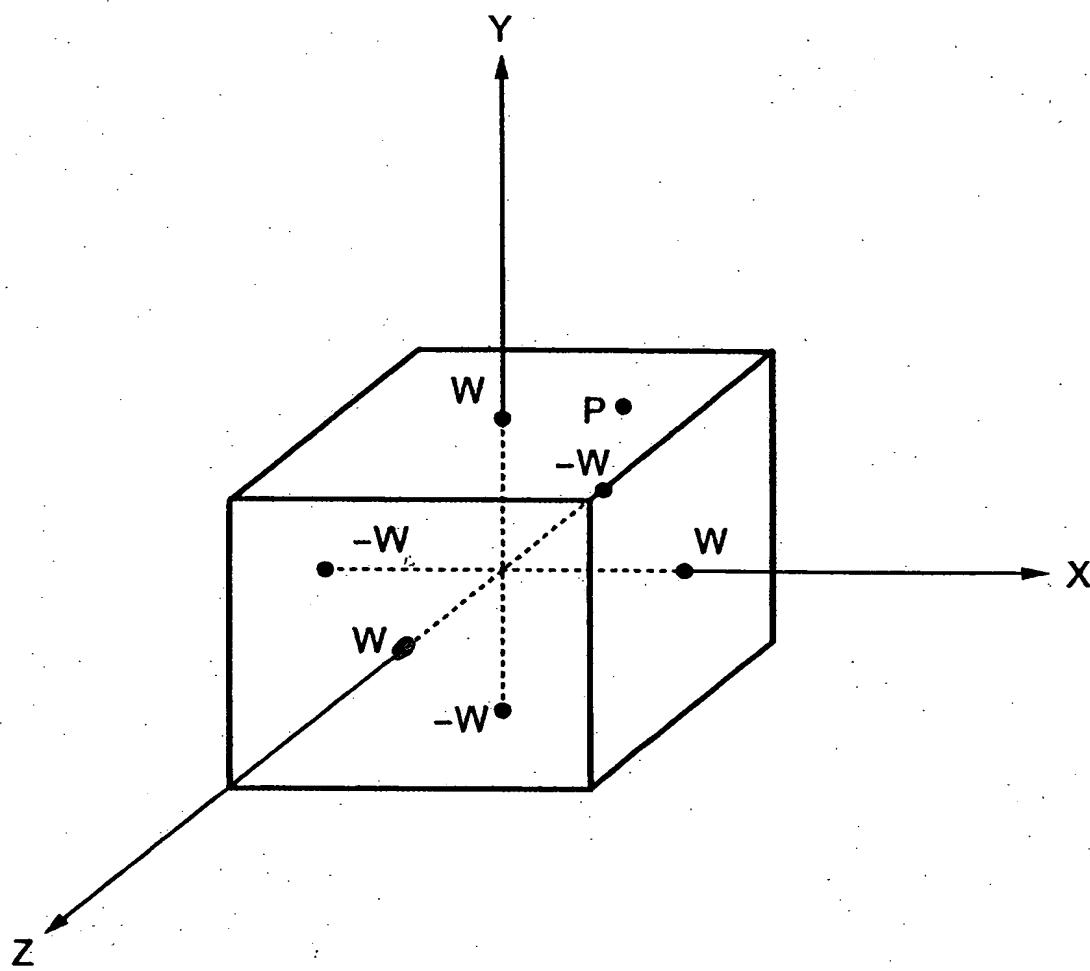


FIG. 3

